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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/013,057 | 10/30/2001 | Kenji Terasawa | SCEITO 3.0-096 | 8282 |
| 530 | 7590 | 12/20/2005 | EXAMINER | |
| LERNER, DAVID, LITTENBERG, KRUMLHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090 | | | SKED, MATTHEW J | |
| | | ART UNIT | PAPER NUMBER | 2655 |

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/013,057 | TERASAWA ET AL. |
| | Examiner Matthew J. Sked | Art Unit 2655 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 October 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,4-9,11-16 and 18-22 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4-9,11-16 and 18-22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/06/05 has been entered.

Response to Amendment

2. Applicant's arguments with respect to claims 1, 8, 15 and 22 have been considered but are moot in view of the new ground(s) of rejection, necessitated by amendment.

Claim Objections

3. Claim 21 is objected to because of the following informalities: Claim 21 is dependent upon canceled claim 17. For the purposes of examination it will be assumed that claim 21 should depend upon claim 15.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 6, 8, 9, 13, 15, 16, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (U.S. Pat. 6,577,998) in view of Ozawa et al. (U.S. Pat. 6,538,666) and taken in further view of Hoory et al. (U.S. Pat. 6,785,649).

As per claims 1, 8, 15 and 22, Yamamoto teaches an entertainment apparatus, method, storage unit and executable program with which a voice input device for receiving a voice input from a player is usable, the entertainment apparatus comprising:

sound interval extracting means for extracting information of a relative sound interval from the voice of the player received through said voice input device (voice analyzing unit analyzes the voice input to determine a pitch parameter, col. 7, lines 15-18);

sound volume extracting means for extracting information of a sound volume from the voice of the player received through said voice input device (voice analyzing unit analyzes the voice input to determine a volume parameter, col. 7, lines 15-18);

reference voice data storage means for storing voice data as an evaluation reference about the relative sound interval and the sound volume with respect to the voice to be inputted by the player (last frequency value and volume value are saved to

calculate the frequency and volume change parameters, col. 9, lines 41-48 and 53-59), wherein; and

said character control means periodically compares said extracted information of the relative sound interval and said extracted information of the sound volume with the voice data as said evaluation reference, and determines operation contents of the character on the basis of results of the comparison (last frequency value and volume values are compared to the current frequency and volume values which are then used to determine the animation parameters for display, col. 9, lines 41-48, 53-59 and col. 7, lines 30-36);

wherein said character control means makes the character perform an operation according to a result of the evaluation (adjust the animation parameters according to the voice parameters which include the pitch and uses these adjusted animation parameters to retrieve the corresponding animation frames and displays them, col. 7, lines 30-36 and 45-50).

Yamamoto does not teach a character control means for controlling the operation of a game character.

Ozawa teaches a character control means for controlling the operation of a game character (player enters spoken words to have a character perform given actions, col. 11, lines 59-64).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the speech-controlled animation system of Yamamoto to operate in

a video game environment as taught by Ozawa because it would allow a handicapped person to operate the animated character.

Neither Yamamoto nor Ozawa teaches the reference voice data being data other than data included in the voice from the player.

Hoory teaches a method for visualizing the meaning and prosody of a user's utterance where the volume is categorized in to different ranges hence there must inherently be reference data (e.g. thresholds) stored previously to determine which category the volume belongs into (col. 6, lines 15-23 and 50-58).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Yamamoto and Ozawa so the reference voice data being data other than data included in the voice from the player as taught by Hoory because it would allow the animations to correspond directly to a set volume levels hence avoiding the difference calculation.

6. As per claim 2, 9 and 16, Yamamoto does not teach a guide display means for indicating contents of the voice to be inputted by the player.

Ozawa teaches a guide display means for indicating contents of the voice to be inputted by the player (displays the possible verbal inputs the user can say in different colors before the user speaks the commands, col. 16, lines 57-66).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Yamamoto to have a guide display means for indicating contents of the voice to be inputted by the player as taught by Ozawa because, as Ozawa teaches, it would prevent the user from uttering words at random

because they do not know which words to enter, which prevents the player from losing interest in the game (col. 16, lines 66-67 and col. 17, lines 1-2).

7. As per claims 6, 13 and 20, Yamamoto teaches that said character control means compares said extracted information of the relative sound interval and the voice data of the relative sound interval as said evaluation reference, and, as a result of the comparison, said character control means exaggerates an expression of the character as the extracted relative sound interval is higher than the relative sound interval as the evaluation reference, and moderates the expression of the character as the extracted relative sound interval is lower than the relative sound interval as the evaluation reference (lips are oscillated according to changes in the frequency of the input voice, hence a high frequency would oscillate the lips more than a low frequency hence exaggerating and moderating the expression of the character, col. 8, lines 59-63).

8. Claims 4, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Ozawa and taken in further view of Hoory and Comerford et al. (U.S. Pat. 6,748,361).

Yamamoto, Ozawa and Hoory do not teach an expression mode display means for indicating an expression mode of the voice to be inputted by the player.

Comerford teaches a personal speech assistant that prompts the user to speak louder or to use certain command words that the application would recognize (col. 18, lines 42 to col. 19, line 5).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Yamamoto, Ozawa and Hoory to have an expression mode display means for indicating an expression mode of the voice to be inputted by the player as taught by Comerford because it would indicate to the user the appropriate way to express the input so as to obtain the preferred output hence making the system more user-friendly.

9. Claims 5, 7, 12, 14, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Ozawa and taken in further view of Hoory and Bellomo et al. (U.S. Pat. 6,766,299).

As per claims 5, 12 and 19, Yamamoto teaches the operation of said character is shown by regenerating image data prepared in advance (animation generator retrieves a desired sequence of animation frames from an animation frame database, col. 7, lines 45-48).

Yamamoto, Ozawa and Hoory do not teach said character control means changes a regenerating speed of said image data on the basis of the difference between timing for indicating contents of the voice to be inputted by said player and timing for starting the input of the voice by the player.

Bellomo et al. (U.S. Pat. 6,766,299), cited in the previous Office Action, teaches a speech controlled animation system that allows the animation to speak in the user's voice. Each phoneme from the phoneme train of the user is mapped to a mouth shape animation sequence where similar mouth shapes corresponding to similar phonemes

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are mapped together into one event (col. 7, lines 13-60). Therefore, with a constant sampling rate (col. 5, lines 18-28) the faster the user speaks the more likely the phonemes are to be different at each sampling interval thus giving a sequence of events without much grouping and more changes in animation frames hence giving faster animation.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Yamamoto, Ozawa and Hoory so that the character control means changes a regenerating speed of said image data on the basis of the difference between timing for indicating contents of the voice to be inputted by said player and timing for starting the input of the voice by the player as taught by Bellomo because it would give the animation a better appearance to have the sound and image synchronized and using a reference timing would give a fast and accurate calculation of the rate of the user's speech which would speed up processing.

10. As per claims 7, 14 and 21, Yamamoto, Ozawa and Hoory do not specifically teach nor suggest the character control means compares said extracted information of the sound volume and the voice data of the sound volume as said evaluation reference, and as a result of this comparison, said control means exaggerates a behavior of the character as the extracted sound volume is larger than the sound volume as the evaluation reference, and moderates the behavior of the character as the extracted sound volume is smaller than the sound volume as the evaluation reference.

Bellomo teaches a speech-controlled animation system that modifies the shape of the mouth of the animation to a large "O" if the volume level is loud and a small "O"

when the volume level is low hence exaggerating the expression when the volume is loud (col. 5, lines 57-67).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Yamamoto, Ozawa and Hoory so that the character control means compares said extracted information of the sound volume and the voice data of the sound volume as said evaluation reference, and as a result of this comparison, said control means exaggerates a behavior of the character as the extracted sound volume is larger than the sound volume as the evaluation reference, and moderates the behavior of the character as the extracted sound volume is smaller than the sound volume as the evaluation reference as taught by Bellomo because it would better correlate the animation with the voice of the user hence making the system more enjoyable to use.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Sked whose telephone number is (571) 272-7627. The examiner can normally be reached on Mon-Fri (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MS
12/14/05



W. R. YOUNG
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to be "W. R. YOUNG", followed by the title "PRIMARY EXAMINER" in capital letters.